

REMARKS

Claims 35-65, and 113-172 are in the application.

The independent claims are 35, 40, 47, 55, 58, 115-119, 128, 161 and 164.

Claims 161-172 are new.

Claims 147-160 are amended to correct claim numbering per 37 C.F.R. 1.126.

Claim 117 is amended to eliminate a superfluous comma.

The word "persistently" means something which exists for an extended duration, and is intended to distinguish data which is stored fleetingly or temporarily, for example in a volatile memory during a particular processing task, and thereafter lost or erased. The word persistently-- does not require permanent storage, but in the context of the claims, would be available until at least a subsequent updating.

The interpretation of the phrase "media content records" by the examiner is adopted, with the caveat that, in the amended claims, they must comprise at least image or video media. It is believed that the specification fairly supports this interpretation.

The examiner has commented on the use of the word "degree". Applicants do not necessarily agree with the examiner's insinuation that in all cases, this relates to a user selection, and have thus amended the claim language, without prejudice or disclaimer, to more closely correspond with the language in the specification. In general, the word "degree" is intended to distinguish a simple yes/no decision or 1 bit binary process or representation, and thus indicates that there are gradations between the two extremes. When something is ordered, ranked or otherwise arranged according to or in reference to a "degree", it means that a magnitude-sensitive process is employed. It is believed that this usage is consistent with both the specification and common usage. The priority document clearly discusses using correlation indices in order to compare options, and it is believed that the word "degree", in this context, is inherently supported therein.

Claim 35 has been amended to recite that the identifications are ordered in dependence on the determined relation. This is supported, for example, by the language: "Menu options are preferably displayed in logical order or in their expected frequencies."

Claims 40, 47 and 55 have been amended, without prejudice or disclaimer, to recite that identifiers of objects are arranged according to a correlation of the user profile and the set of

objects, or characterizations of the set of objects or media content records. This amendment is believed to be supported at various portions of the specification.

The normal meaning of the word "ranking" or "rankings" is intended. Ranking is intended to mean an ordering according to magnitude of a parameter. As per the discussion relating to "degree",

Note that the word "index", as used in certain instances in the specification, e.g., "correlation index", is consistent with "a numerical scale used to compare variables with one another or with some reference number", per Wordnet (<http://wordnet.princeton.edu/>), and thus further supports applicants' interpretation.

The phrase "unstructured database" in claim 41 has been amended to simply, "database".

The phrase "eligible recipient" in claim 51 has been amended to simple, "recipient".

A customer is an entity that purchases by payment a good or service. The specification discloses cable media transmission, satellite media transmission, pay-per-view technology, charging the account of a viewer, and the like. Therefore, it is believed that the word "customer" is fairly supported in the specification.

Claims 51-52 and 59-60 have been amended, without prejudice or disclaimer, to recite that the updating occurs without "explicit" input from the user or consumer, to distinguish inferential sources of information.

Claim 60 has been amended to cancel the phrase "received from a video head end".

Claim 64 has been amended to cancel the phrase "in accordance with the time of day and day of the week".

Claims 125-127 are amended to cancel the phrase "set top box", without prejudice or disclaimer. In particular, it is believed that at least the VCR disclosed in the present application is well known as a set top box.

Claim 127 is also amended to eliminate the transforming means and comparing step. The scheduled programs are prioritized ("Using a predictive technology, such as Boolean logic, fuzzy logic, neural network logic, or other type of artificial intelligence, a most probable choice may be presented to the user for his approval, or another alternative choice may be selected. Further, a number of most probable choices may be presented simultaneously or in sequence, in order to improve the probability that the user will be immediately or quickly presented with an acceptable choice. If multiple choices are presented, and there is limited room on the display, two (or more)

similar choices may be merged into a single menu selection, which may be resolved in a secondary menu screen.”)

Claim 142 has been amended without prejudice or disclaimer to recite “type of program preference.” (“The intelligence of the device of the present invention is not limited by the foregoing examples; the user could also input characteristics of the program material that are desired, and characteristics of that program material which is not desired. The device would then, over time, monitor various broadcast choices, and determine which most closely match the criterion, and thus be selected. For example, if the user prefers “talk-shows”, and indicates a dislike for “situation comedies” (“sitcoms”), then the device could scan the various available choices for characteristics indicative of one or the other type of programming, and perform a correlation to determine the most appropriate choice(s).”)

The “options” of claims 146-148 have antecedent basis in claim 128, as follows: “a menu having a plurality of options available for user selection”. The examiner’s interpretation of the word “option” is therefore inconsistent with the claim language. Quite simply, an option is a choice available for the user. While available options may be different versions of the same story, it is not so limited, and generally would not be limited to such alternate expressions of the same essence. Per the Examiner’s inference, if different versions of the same story were available for user selection, these would indeed qualify as “options”.

The “common physical storage medium” of claim 157 is intended to denote the same physical storage medium, not to distinguish “uncommon” physical storage media. For example, the specification states: “In a preferred embodiment of the present invention, in a VCR, in order to track the content of the tape, a directory or a catalog is recorded, preferably digitally, containing the programming information, as well as additional information about the recorded programs, in a header, i.e., at the beginning of the tape, or in other locations on the tape. The device may also catalog the tape contents separately, and based on an identification of the tape, use a separately stored catalog.” This thus expresses that a set of programs may be stored on a single tape.

Numerous other amendments have been made, in order to more clearly define that which applicants believe to be their invention, and in some cases to withdraw limitations previously proposed for purposes of instituting interference.

It is therefore believed that all claim terms find support in the earliest claimed priority, December 23, 1991.

Claim 160 is rejected under 35 U.S.C. § 112, as being allegedly indefinite for its recitation of "said characterization information." This has been amended to "said identifications."

Claims 35-39, 47-59, 115-117, 122, 128-130, 134, 140-144 and 147-160 are rejected under 35 U.S.C. § 102(a) as being anticipated by Bender et al. Claims 40-46, 113-114, 118-119, 123-125, 133, 135-139 and 145-146 are rejection as being obvious over Bender et al. Claims 131-132 are rejected under 35 U.S.C. § 103 as being obvious over Bender et al. in view of Tsakiris. Applicants respond, without prejudice to applicants' right to seek to antedate the Newspace reference.

Claims 60-65 and 126-127 were indicated as previously including allowable subject matter.

New claims 161-163 include a portion of the subject matter of claims 60-62.

Each of the independent claims, with the exception of claims 118-119, include a limitation that automated characterizations of image, video, or multimedia content, expressed in various ways, are employed. It is believed that this amendment clearly distinguishes both the Newspace article (Bender et al.) and Hey, as well as other cited references.

The present claims (except 118-119) do not encompass instances where all of the content characterizing information is generated by humans (i.e., manually). Further, the claims do not encompass pure text analysis of written materials or transcripts of audio streams, whether automated or manual, since purely text objects are not within the scope of the image and video data objects encompassed by the claims.

The Newspace article clearly defines, within its context, a very advanced and complex system (notably without report on its use or function in testing). The actual state of operation of this system may even be open to debate, but the rejection itself is properly based on what knowledge that reference imparts to a person of ordinary skill in the art at the time of the invention. However, one cannot permissibly extract from the reference enablement of a person of ordinary skill in the art, when the authors, themselves experts, were unable or did not implement the features.

For the purposes hereof, applicants will assume arguendo that a person of ordinary skill in the art could replicate the "Doppelganger" system of Orwant, or its equivalent, and use that to implement a text-analysis based news content recommender, which is believed to represent the essence of the Newspace article disclosure.

The Newspace article expressly disclaims actual use of automated image or video content analysis, and states that, while in theory such analysis might be available, implementation was a future task. It is not clear that the recommender system disclosed would be able to generate useful user profiles from automated image or video descriptive data, and thus any proposed combination of third party image or video analysis would have to address this issue as well. Any reported use of image or video data content by Bender et al. is based on associated manually generated descriptive data or audio transcripts.

In particular, Bender et al. state:

"Natural language comprehension is far off. But even in the absence of explicit cues, text always allows some meaning to be extracted, unlike other media. Techniques as simple as the keyword analysis used by Newspace can provide a reasonable first approximation to sophisticated storage comprehension." (§ 2.1 ¶1)

"Currently, the only way non-lexical sources can be manipulated is to assume some lexical "slug" that describes the contents." (§ 2.2, ¶1)

"A closed caption decoder provides lexical cues to the content of the video." (§ 2.2, ¶4)

"Voice mail poses interesting challenges for inclusion into Newspace and is something we may consider in the future." (§ 2.2, ¶5)

"With the exception of audio, all news is kept in a common format: the datfile....Each datfile is actually a directory containing a data file and a descriptor... the descriptor is a series of keyword-value pairs that describe the data... The subsidiary datfiles facilitate both semantic and syntactic information retrieval. For text, we can immediately retrieve any paragraph or sentence, and can perform some rudimentary content analysis from the histogram datfile. We anticipate more sophisticated analysis techniques in the future; the flexible structure of the datafile permits such extensions" (§ 2.3, ¶¶1-3)

"The models are used to select articles on the basis of category, keywords, source, and timeliness. We would like to be able to make more subtle distinctions, but two obstacles prevent

this: the lack of adequate story comprehension and the lack of content cues provided at the time of distribution.” (§ 3.1, ¶3).

“One example of this transcoding is the transcription of audio.” (§ 4.1, ¶2)

“A manageable way to deal with [video] information is to describe the objects individually within the frame rather than assign descriptive attributes to a series of frames.” (§ 4.4, ¶1)

4.5 Parsing vs. Editorialized Information (§4.5, see entirety)

Thus, it is clear that Bender et al. did not report on an implemented system for image or video analysis, nor do they enable such a system suitable for their purposes, and would appear to indicate that any such implementation would require the exercise of inventive skill at a later time.

Claim 118 requires a financial accounting for selection of an object by a user, which is not taught nor suggested by Bender et al., and therefore is believed to distinguish Bender et al.

Claim 119 requires that the system account for satisfaction of a user demand for data. That is, the user has an information requirement, which, when satisfied, acts as a negative preference for further data having the satisfied attribute. This feature is neither taught nor suggested in Bender et al. nor any of the other cited references.

It is therefore respectfully submitted that the independent claims distinguish the references, and the case is now in form for allowance.

The Examiner is respectfully invited to contact the undersigned, if necessary, to resolve issues or otherwise streamline prosecution expeditiously. It is specifically noted that all claims, except 118-119, are distinguished on an single ground, and therefore that if the Examiner disagrees with respect to Applicants' analysis of this issue, that discussions on that issue alone may be useful, productive, and efficient.

An early and favorable action on the merits is respectfully solicited.

Respectfully submitted,

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